IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method of operating an access device comprising:

receiving a packet at an access device deployed in a first network;

automatically identifying a switch server in a second network, where the switch server is associated with an identifier obtained from the packet; and

forwarding the packet to the switch server in the second network so that the switch server can release the packet in the second network without releasing the packet in the first network.

2. (Original) The method of claim 1 wherein the packet is a layer two frame.

3. (Original) The method of claim 2 wherein the packet is received from a user device with layer two connectivity with the access device.

4. (Original) The method of claim 3 where the first network is a remote network and the second network is a home network for a user of the user device.

5. (Original) The method of claim 3 wherein the identifier comprises a media access control address associated with the user device.

6. (Original) The method of claim 3 wherein the identifier comprises a media access control address associated with the user device and a cryptographic key identifier.

7. (Original) The method of claim 3 wherein the identifier comprises a network layer address.

8. (Original) The method of claim 1 wherein the packet is forwarded using a communication channel established across a public data network between the access device in the first network and the switch server in the second network.

9. (Original) The method of claim 8 where communication channels are established between the access device in the first network and a plurality of switch servers in different networks dynamically based on which users have established connectivity with the access device.

10. (Original) The method of claim 8 where communication channels are dynamically established between access devices and switch servers which have no prior knowledge of each other.

11. (Original) The method of claim 4 in which the user device connects in a same manner as it connects to the home network.

12. (Original) The method of claim 4 where the remote network does not need to allocate an IP address for the user device.

13. (Original) The method of claim 4 where the remote network is not involved in performing user authentication and access control.

14. (Original) The method of claim 1 wherein the switch server is identified by performing a lookup request using the identifier obtained from the packet.

15. (Original) A system for remote access to a home network from a remote network, comprising: one or more switch servers, each switch server deployed in a home network associated with one or more users; and

an access device for deployment in a remote network and providing connectivity for user devices, such that packets arriving at the access device from a user are forwarded to the switch server in the home network associated with the user and released into the home network without releasing the packets into the remote network.

16. (Original) The system of claim 15 wherein the packets are layer two frames.

17. (Original) The system of claim 16 wherein the access device establishes communication channels to switch servers dynamically based on which users have established

connectivity with the access device.

18. (Original) The system of claim 15 wherein the access device selects which switch server to forward a packet based on an identifier obtained from the packet, where the identifier is associated with one of the switch servers.

19. (Original) The system of claim 15 wherein multiple user devices having connectivity to the access device may be connected to different home networks and where the user devices connect in a same manner as they connect to their respective home networks.

20. (Currently Amended) An access device comprising:

     a network interface for establishing connectivity with one or more user devices;

   a packet analysis module capable of obtaining an identifier from a packet received from the network interface and identifying a switch server in a second network associated with the identifier; and

    means for dynamically establishing a communication channel with one or more switch servers so that a packet associated with a switch server can be forwarded to the switch server and released in the second network without releasing the packet in a local network.

21. (Original) The access device of claim 20 where the packets are layer two frames.

22. (Original) The access device of claim 20 in which the user device connects in a same manner as it connects to the second network.

23. (Original) The access device of claim 20 where the network interface provides wired connectivity with the user devices.

24. (Original) The access device of claim 20 where the network interface provides wireless connectivity with the user devices.

25. (Original) The access device of claim 20 where traffic from the user devices are not bridged with any nodes in the local network.

26. (Currently Amended) A switch server~~-~~comprising:

a network interface for connecting to a home network of a user; and

an access module configured to ~~capable of maintaining~~ maintain communication channels with one or more access devices over a remote network, and ~~receiving~~ receive packets from ~~the~~ an access device on behalf of a user device, where the packets received from the remote network are not released in the remote network, and ~~releasing~~ release the packets using the network interface into the home network of the user.

27. (Original) The switch server of claim 26 where the packets are layer two frames.

28. (Original) The switch server of claim 26 wherein the switch server is responsible for local access policy enforcement.

29. (Original) The switch server of claim 26 further comprising a decryption module for decrypting packets from the access device.

30. (Original) The switch server of claim 26 further comprising a lookup module that responds to lookup requests from access devices.

31. (Currently Amended) A device-readable medium comprising program instructions for causing an access device deployed in a first network to perform the steps of

receiving a packet;

identifying a switch server in a second network, where the switch server is associated with an identifier obtained from the packet; and

forwarding the packet to the switch server in the second network so that the switch server can release the packet in the second network without releasing the packet in the first network.

32. (Original) The device-readable medium of claim 31 wherein the packet is a layer two frame.

33. (Original) The device-readable medium of claim 31 wherein the packet is received from a user device with layer two connectivity with the access device.

34. (Original) The device-readable medium of claim 33 where the first network is a remote network and the second network is a home network for a user of the user device.

35. (Original) The device-readable medium of claim 33 wherein the identifier comprises a media access control address associated with the user device.

36. (Original) The device-readable medium of claim 33 wherein the identifier comprises a cryptographic key.

37. (Original) The device-readable medium of claim 33 wherein the identifier comprises a network layer address.

38. (Original) The device-readable medium of claim 31 wherein the packet is forwarded using a communication channel established across a public data network between the access device in the first network and the switch server in the second network.

39. (Original) The device-readable medium of claim 38 where communication channels are established between the access device in the first network and a plurality of switch servers in different networks dynamically based on which users have established connectivity with the access device.

40. (Original) The device-readable medium of claim 31 wherein the switch server is identified by performing a lookup request using the identifier obtained from the patent.